

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/992,901

DATE: 12/03/2001
TIME: 14:45:50

Input Set : A:\SALKINS024DV1.TXT
Output Set: N:\CRF3\11212001\I992901.raw

ENTERED

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4 <110> APPLICANT: Neff, Michael M.
5      Chory, Joanne
7 <120> TITLE OF INVENTION: GENETICALLY MODIFIED PLANTS HAVING
8      MODULATED BRASSINOSTEROID SIGNALING
11 <130> FILE REFERENCE: SALKINS.024DV1
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/992,901
C--> 13 <141> CURRENT FILING DATE: 2001-11-14
13 <150> PRIOR APPLICATION NUMBER: US 09/527,073
14 <151> PRIOR FILING DATE: 2000-03-16
16 <150> PRIOR APPLICATION NUMBER: US 60/124570
17 <151> PRIOR FILING DATE: 1999-03-16
19 <150> PRIOR APPLICATION NUMBER: US 60/170,931
20 <151> PRIOR FILING DATE: 1999-12-14
22 <150> PRIOR APPLICATION NUMBER: US 60/172,832
23 <151> PRIOR FILING DATE: 1999-12-20
25 <160> NUMBER OF SEQ ID NOS: 16
27 <170> SOFTWARE: FastSEQ for Windows Version 4.0
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 1563
31 <212> TYPE: DNA
32 <213> ORGANISM: Arabidopsis thaliana
34 <220> FEATURE:
35 <223> OTHER INFORMATION: Oligonucleotide
37 <400> SEQUENCE: 1
38 atggaggaag aaagtagcag ctggttcatt ccaaaggttc ttgttctgtc tgtaatctta 60
39 agtcttgtaa tagtgaaggg tatgtctctg ttatggtgga gaccaagaaa gattgaagaa 120
40 catttctcta aacaaggaat tcgaggtcct ccttatcatt tcttcacgga aaatgttaaa 180
41 gaacttggtg gaatgatgct taaagcttct tctcatccta tgcttttctc tcacaatatt 240
42 ctctctagag ttctctcttt ttaccatcac tggagaaaaa tctacggtgc tacatttctg 300
43 gtttggttcg gtccaacttt ccggttaacg gtagccgacg ctgatttgat cagagagatc 360
44 ttctctaagt ctgagttcta cgagaagaat gaagctcacc ctttggttaa acaacttgaa 420
45 ggcgatggac tacttagtct caaaggtgaa aaatgggctc atcatcgaaa aatcatttagc 480
46 cctacttttc atatggagaa tcttaagttg cttgtaccag ttgtgttgaa gagtgtgact 540
47 gatatggttg ataaatggtc cgataagtta tcagaaaacg gtgaagttga ggtagatgtc 600
48 tatgagtggg ttcagatttt gactgaagat gttattagta gaacagcttt tgggaagtagc 660
49 tatgaagatg gtcgagcagt ttttcgactt caagctcaac aaatgcttct ttgtgctgaa 720
50 gcttttcaaa aagtcttcat tcttggttat agattttttc cgacaagagg gaatttgaa 780
51 tctcggaagt tagacaagga gataaggaag tcgttggtga agctgataga gcggcgagg 840
52 caaacgcta tagatggaga aggggaagaa tgtaaggagc cggcgaggaa ggatttggtg 900
53 ggataaatga ttcaggcaaa gaatgtgacg gttcaggaca ttgtggagga gtgtaaaagc 960
54 tttttcttcg ccgggaaaca gacaacttct aatctgctga cgtggacgac catcttgcta 1020
55 tccatgcacc cggagtggca ggccaaagca cgtgatgagg tcctcagggt ctgcggctca 1080
56 cgtgatgtcc ctaccaagga ccatgtcggt aagcttaaaa cgttgagtat gatcttgaa 1140
57 gagtctttaa gggtgtatcc accaatagta gctacgattc gacgcgctaa atcggtatg 1200
58 aagctaggag ggtacaaaat cccatgtggc acggagcttc taatcccaat catagcggtc 1260
59 catcatgacc aagccatttg gggtaatgac gtgaacgaat tcaatccagc tcggtttgcg 1320
60 gatggagtgc cgcgtgctgc caaacacccc gttggcttca taccgtttgg cctcggagtt 1380

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61 cgtacatgca ttggtcagaa tcttgctata cttcaggcca aattgacact cgctgtaatg 1440
62 atccaacgct tcacctttca cttggtctct acttatcagc atgcacctac cgtccttatg 1500
63 ttgctttatc ctcaacatgg tgcaccaatc accttcogga gattgaccaa tcatgaggat 1560
64 tga 1563
66 <210> SEQ ID NO: 2
67 <211> LENGTH: 520
68 <212> TYPE: PRT
69 <213> ORGANISM: Arabidopsis thaliana
71 <400> SEQUENCE: 2
72 Met Glu Glu Glu Ser Ser Ser Trp Phe Ile Pro Lys Val Leu Val Leu
73 1 5 10 15
74 Ser Val Ile Leu Ser Leu Val Ile Val Lys Gly Met Ser Leu Leu Trp
75 20 25 30
76 Trp Arg Pro Arg Lys Ile Glu Glu His Phe Ser Lys Gln Gly Ile Arg
77 35 40 45
78 Gly Pro Pro Tyr His Phe Phe Ile Gly Asn Val Lys Glu Leu Val Gly
79 50 55 60
80 Met Met Leu Lys Ala Ser Ser His Pro Met Pro Phe Ser His Asn Ile
81 65 70 75 80
82 Leu Pro Arg Val Leu Ser Phe Tyr His His Trp Arg Lys Ile Tyr Gly
83 85 90 95
84 Ala Thr Phe Leu Val Trp Phe Gly Pro Thr Phe Arg Leu Thr Val Ala
85 100 105 110
86 Asp Pro Asp Leu Ile Arg Glu Ile Phe Ser Lys Ser Glu Phe Tyr Glu
87 115 120 125
88 Lys Asn Glu Ala His Pro Leu Val Lys Gln Leu Glu Gly Asp Gly Leu
89 130 135 140
90 Leu Ser Leu Lys Gly Glu Lys Trp Ala His His Arg Lys Ile Ile Ser
91 145 150 155 160
92 Pro Thr Phe His Met Glu Asn Leu Lys Leu Leu Val Pro Val Val Leu
93 165 170 175
94 Lys Ser Val Thr Asp Met Val Asp Lys Trp Ser Asp Lys Leu Ser Glu
95 180 185 190
96 Asn Gly Glu Val Glu Val Asp Val Tyr Glu Trp Phe Gln Ile Leu Thr
97 195 200 205
98 Glu Asp Val Ile Ser Arg Thr Ala Phe Gly Ser Ser Tyr Glu Asp Gly
99 210 215 220
100 Arg Ala Val Phe Arg Leu Gln Ala Gln Gln Met Leu Leu Cys Ala Glu
101 225 230 235 240
102 Ala Phe Gln Lys Val Phe Ile Pro Gly Tyr Arg Phe Phe Pro Thr Arg
103 245 250 255
104 Gly Asn Leu Lys Ser Arg Lys Leu Asp Lys Glu Ile Arg Lys Ser Leu
105 260 265 270
106 Leu Lys Leu Ile Glu Arg Arg Arg Gln Asn Ala Ile Asp Gly Glu Gly
107 275 280 285
108 Glu Glu Cys Lys Glu Pro Ala Ala Lys Asp Leu Leu Gly Leu Met Ile
109 290 295 300
110 Gln Ala Lys Asn Val Thr Val Gln Asp Ile Val Glu Glu Cys Lys Ser
111 305 310 315 320

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112 Phe Phe Phe Ala Gly Lys Gln Thr Thr Ser Asn Leu Leu Thr Trp Thr
113           325           330           335
114 Thr Ile Leu Leu Ser Met His Pro Glu Trp Gln Ala Lys Ala Arg Asp
115           340           345           350
116 Glu Val Leu Arg Val Cys Gly Ser Arg Asp Val Pro Thr Lys Asp His
117           355           360           365
118 Val Val Lys Leu Lys Thr Leu Ser Met Ile Leu Asn Glu Ser Leu Arg
119           370           375           380
120 Leu Tyr Pro Pro Ile Val Ala Thr Ile Arg Arg Ala Lys Ser Asp Val
121 385           390           395           400
122 Lys Leu Gly Gly Tyr Lys Ile Pro Cys Gly Thr Glu Leu Leu Ile Pro
123           405           410           415
124 Ile Ile Ala Val His His Asp Gln Ala Ile Trp Gly Asn Asp Val Asn
125           420           425           430
126 Glu Phe Asn Pro Ala Arg Phe Ala Asp Gly Val Pro Arg Ala Ala Lys
127           435           440           445
128 His Pro Val Gly Phe Ile Pro Phe Gly Leu Gly Val Arg Thr Cys Ile
129           450           455           460
130 Gly Gln Asn Leu Ala Ile Leu Gln Ala Lys Leu Thr Leu Ala Val Met
131 465           470           475           480
132 Ile Gln Arg Phe Thr Phe His Leu Ala Pro Thr Tyr Gln His Ala Pro
133           485           490           495
134 Thr Val Leu Met Leu Leu Tyr Pro Gln His Gly Ala Pro Ile Thr Phe
135           500           505           510
136 Arg Arg Leu Thr Asn His Glu Asp
137           515           520

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140 <210> SEQ ID NO: 3

142 <220> FEATURE:

143 <223> OTHER INFORMATION: Primer

145 <400> SEQUENCE: 3

W--> 146 000

148 <210> SEQ ID NO: 4

149 <211> LENGTH: 20

150 <212> TYPE: DNA

151 <213> ORGANISM: Artificial Sequence

153 <220> FEATURE:

154 <223> OTHER INFORMATION: Oligonucleotide primer

156 <400> SEQUENCE: 4

157 ctgtcgtgga aagtgtgagg

20

159 <210> SEQ ID NO: 5

160 <211> LENGTH: 18

161 <212> TYPE: DNA

162 <213> ORGANISM: Artificial Sequence

164 <220> FEATURE:

165 <223> OTHER INFORMATION: Oligonucleotide primer

167 <400> SEQUENCE: 5

168 gaaccttgac gcttgagg

18

170 <210> SEQ ID NO: 6

171 <211> LENGTH: 19

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172 <212> TYPE: DNA
173 <213> ORGANISM: Artificial Sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: Oligonucleotide primer
178 <400> SEQUENCE: 6
179 gctctctcga ggtcgacgg 19
181 <210> SEQ ID NO: 7
182 <211> LENGTH: 20
183 <212> TYPE: DNA
184 <213> ORGANISM: Artificial Sequence
186 <220> FEATURE:
187 <223> OTHER INFORMATION: Oligonucleotide primer
189 <400> SEQUENCE: 7
190 gcttgctgga ctatttgagc 20
192 <210> SEQ ID NO: 8
193 <211> LENGTH: 20
194 <212> TYPE: DNA
195 <213> ORGANISM: Artificial Sequence
197 <220> FEATURE:
198 <223> OTHER INFORMATION: Oligonucleotide primer
200 <400> SEQUENCE: 8
201 ggttcaggac attgtggagg 20
203 <210> SEQ ID NO: 9
204 <211> LENGTH: 21
205 <212> TYPE: DNA
206 <213> ORGANISM: Artificial Sequence
208 <220> FEATURE:
209 <223> OTHER INFORMATION: Oligonucleotide primer
211 <400> SEQUENCE: 9
212 ggatacaacc ttaaagactc g 21
214 <210> SEQ ID NO: 10
215 <211> LENGTH: 20
216 <212> TYPE: DNA
217 <213> ORGANISM: Artificial Sequence
219 <220> FEATURE:
220 <223> OTHER INFORMATION: Oligonucleotide primer
222 <400> SEQUENCE: 10
223 gcaactcggg aacgacaggc 20
225 <210> SEQ ID NO: 11
226 <211> LENGTH: 21
227 <212> TYPE: DNA
228 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Oligonucleotide primer
233 <400> SEQUENCE: 11
234 tcaagtagca aaatcacggc g 21
236 <210> SEQ ID NO: 12
237 <211> LENGTH: 22
238 <212> TYPE: DNA

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239 <213> ORGANISM: Artificial Sequence
241 <220> FEATURE:
242 <223> OTHER INFORMATION: Oligonucleotide primer
244 <400> SEQUENCE: 12
245 ctctttaatc cttggagatg gc 22
247 <210> SEQ ID NO: 13
248 <211> LENGTH: 25
249 <212> TYPE: DNA
250 <213> ORGANISM: Artificial Sequence
252 <220> FEATURE:
253 <223> OTHER INFORMATION: Oligonucleotide primer
255 <400> SEQUENCE: 13
256 ggttgatcat cttctgctaa ttccc 25
258 <210> SEQ ID NO: 14
259 <211> LENGTH: 31
260 <212> TYPE: DNA
261 <213> ORGANISM: Artificial Sequence
263 <220> FEATURE:
264 <223> OTHER INFORMATION: Oligonucleotide primer
266 <400> SEQUENCE: 14
267 gatctttgcc ggaaaacaat tggaggatgg t 31
269 <210> SEQ ID NO: 15
270 <211> LENGTH: 32
271 <212> TYPE: DNA
272 <213> ORGANISM: Artificial Sequence
274 <220> FEATURE:
275 <223> OTHER INFORMATION: Oligonucleotide primer
277 <400> SEQUENCE: 15
278 cgacttgtca ttagaaagaa agagataaca gg 32
280 <210> SEQ ID NO: 16
281 <211> LENGTH: 588
282 <212> TYPE: DNA
283 <213> ORGANISM: Arabidopsis thaliana
285 <220> FEATURE:
286 <221> NAME/KEY: misc_feature
287 <222> LOCATION: (1)...(588)
288 <223> OTHER INFORMATION: n = A,T,C or G
290 <400> SEQUENCE: 16
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292 cgttgtgata tacatggcgg ccctacgcc gttggccttc ctctctctct ctttctctat 120
293 atctctttct tgatctctct ctataaaagc tcaaatagcc cagcaagcaa aataatccaa 180
294 aaagaaacca agataagaag aaacaaactc gcaaagaaac aaaaaggaaa aaaaaaaaaa 240
295 aaacgaatta aaaaaagaag aaataaatcc tcctttttta cacctcattc cctctttctc 300
296 cggcactcaa aagagaccaa agaagaaaac tttagctctc ctttttgtgt tttctctctt 360
297 ttctttgttg gtgttccgac aatggaggaa gaaagtagca gctggttcat tccaaagggt 420
298 cttgtttctgt ctgtaatctt aagtccttgt aatagtgaag ggtatgtctc tgttatggtg 480
299 gagaccaaga aagattgaag aacatttctc taaacaagga attcgaggtc ctcttatca 540
300 tttcttcacg ggaaatgtta aagaacttgt tgaatgatgc ttaaagct 588

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VERIFICATION SUMMARY

DATE: 12/03/2001

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Input Set : A:\SALKINS024DV1.TXT

Output Set: N:\CRF3\11212001\I992901.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:146 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (3) SEQUENCE:
L:291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16